UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

OCT 16 2015

Mr. Paul V. Rosasco
Project Coordinator
Engineering Management Support, Inc.
7220 West Jefferson Avenue, Suite 406
Lakewood, Colorado 80235

Dear Mr. Rosasco:

The U.S. Environmental Protection Agency has reviewed the submittal titled, "Air Monitoring, Sampling and QA/QC Plan, West Lake Superfund Site Operable Unit 1," dated October 2014, prepared by Auxier & Associates, Inc. and Engineering Management Support, Inc. (EMSI), and the Administrative Settlement Agreement and Order on Consent for Removal Action – Preconstruction Work, dated April 16, 2014.

This letter transmits comments and suggested revisions to assist with the Respondents' and Federal Respondents' development of an Air Monitoring Program Plan capable of monitoring for releases of hazardous substances and radionuclides from OU1, as described in the Statement of Work sent on October 9, 2015.

Further discussion of these comments and suggested revisions may take place during the Scoping Meeting outlined in the Statement of Work. If you have questions before then, please feel free to call me.

Sincerely,

Brad Vann
Remedial Project Manager
Missouri/Kansas Remedial Branch
Superfund Division

Enclosures (2)

cc: Braden Doster, MDNR

Enclosure:
Comments and Suggested Revisions

1. Section 2.3, *Questions to be Addressed*, page 8 of 28: Revise questions to read as:
   - Whether releases of hazardous substances are occurring from OU1.
   - Do the results of the on-site monitoring indicate a statistically significant increase over area background? And, if so, are these results site-related[1]?

2. Table 4-1, List of Samplers for Perimeter Monitoring, page 15 of 28: Based on the results of the EPA's off-site sampling and the predominant wind direction, the EPA would propose to substitute A12 for A11 in the list of locations provided in Table 4-1.

3. Table 4-1, List of Samplers for Perimeter Monitoring, page 15 of 28: The footnote to the table states that "No guidance has been provided by stakeholders regarding a target analyte list for VOCs . . ." A list of analytes was provided in Appendix F of the QA/QC Plan. Based on the EPA's off-site air sampling for VOCs, the EPA requests that the enclosed list of VOCs be reported for the on-site sampling. The purpose of the expanded list is not necessarily because these compounds are expected to be COCs, but rather that the resulting data are comparable to the area background data. In the future, especially in the event that any remedial activities involve breaching the cap over the landfill, the VOC data may be compared with long term trends in area background to determine whether statistically significant releases of VOCs are coming from the landfill.

4. Table 4-1, List of Samplers for Perimeter Monitoring, page 15 of 28: The table states that the meteorological data will be collected continuously. Meteorological data needs to be collected every two minutes, if possible, but every 15 minutes at a minimum to capture changes in wind direction that impact data analysis and modeling. The EPA requests to receive this data in a .csv file as a part of the quarterly report.

5. Section 4.2, Sample Collection and Analysis, page 16 of 28: Regarding the gross beta sample collection and handling, the EPA advises Republic to allow for radon decay for a period of time before analyzing (e.g., counting) the sample, or at a minimum to be consistent amongst the samples in the time allowed between stopping the flow and counting.

6. Table 4-2, Numerical Air Monitoring Limits for Alpha and Beta Emitters, page 16 of 28: If the Respondents' air monitoring assessment takes the approach of looking at data on a comparative-statistical basis, then there will not be a need for numerical limits like the one in Table 4-2 specified for gross alpha and gross beta. Otherwise, the EPA requests a revision of the gross beta investigative levels to remove the alpha contribution in the beta level that occurs because of the inclusion of alpha in some of the branching ratios.

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[1] *Note – The EPA observes that without accounting for local off-site background for radionuclides using similar equipment, a proper comparison against local background conditions and hence determination of a release from OU1 cannot be made. Therefore, the EPA asks the respondents to consider additional monitoring to adequately measure the off-site radiation background. The EPA recognizes that radionuclides background monitoring is not yet in place. Until such time as radiation background monitoring is in place, the radionuclides data collected from on-site monitors shall be statistically evaluated against each other to determine if one or more monitors indicate elevated readings.

7. Section 4.1.1, Compliance Evaluation, page 16 of 28: The last paragraph states that "VOC results obtained from ambient upwind and downwind monitoring stations will be compared against applicable criteria and/or risk based screening levels." The EPA believes that it is more appropriate to compare the results of the VOC analysis with the EPA off-site air sampling results and the data from the National Air Toxics Trends Station (NATTS) located on Blair Street in downtown St. Louis[2]. There is an abundance of quality-assured VOC data that is representative of the St. Louis area air quality that may be used for a statistical comparison to indicate whether VOCs are site-related and to provide an early indicator of quality assurance problems should any arise.

8. Table 4-4, Field Sampling Summary, page 19 of 28: The EPA requests that for radon and gamma dose (TLD), the frequency of field duplicate collection be increased to 10%, at least initially (approximately two duplicates per month), to provide an early indication of any quality assurance problems. The frequency could be revisited as the sampling proceeds if there are no reasons to continue duplicate sample collection at this frequency.

9. Table 4-4, Field Sampling Summary, page 19 of 28: The EPA requests that an exposure trip dose be measured as a more accurate determination of gamma dose during the quarterly monitoring periods. This may be accomplished by storing the trip dosimeter in a lead container and placing a dosimeter with it to measure the exposure during the sample period. Then by knowing the dose attributed to the trip dosimeter during the sample period; the transport dose of the TLDs can be determined.

10. Table 4-4, Field Sampling Summary, page 19 of 28: The EPA requests that a filter media blank be collected, at least initially, at a frequency of one per every batch of samples shipped to the laboratory for VOC analysis. The Radiello cartridge should be transported to the field in a sealed container and shipped with the samples. The cartridge should not be exposed to ambient air. Its purpose would be to measure the type and amount of VOCs, if any, that may be present on the filter media from shipment and handling to the field and from the field to the laboratory. The collection of the filter media blank could be discontinued if Republic finds, and the EPA agrees, that testing indicates that VOC contaminants are not being introduced to sample media through shipment and handling.

11. Section 6.2, Reports, page 26 of 28: The EPA requests that all radionuclides and VOC data that have been reported from the laboratory within that month be provided to the EPA in monthly reports. The EPA requests that all data be validated, analyzed and summarized in quarterly reports currently described in the Preconstruction Administrative Order on Consent. The EPA requests a rolling comparison of VOC and radionuclide data against area background. The EPA observes that without accounting for local off-site background using similar equipment, a proper comparison against local background conditions and hence determination of a release from OU1 cannot be made. Therefore, the EPA asks the respondents to consider additional monitoring to adequately measure the off-site

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[1] Starting in 2003, EPA has been working with state and local partners to develop the NATTS program to monitor air toxics. The principal objective of the NATTS network is to provide long-term monitoring data across representative areas of the country for priority pollutants in ambient air and to establish overall trends. The St. Louis NATTS is operated and maintained by the MDNR under a grant from EPA. Sampling and analytical methodologies used at the NATTS are comparable to those used for the WLLS air monitoring.

radiation background. The EPA recognizes that radiation background monitoring is not yet in place. Until such time that background radiation monitoring is in place, the radiation data collected from monitors on-site shall be statistically evaluated against each other to determine if one or more monitors indicate elevated readings.

Enclosure:
Recommended VOC Analytes List

WLLS VOC Analytes Lists July 30, 2015				
Volatile Organic Compound	**EPA WLLS Analyte**	**NATTS Analyte**	**Republic Analyte per QAPP Appendix F**	**Republic Requested Analytes List**
Benzene	√	√	√	√
Benzyl chloride	√	√		√
Bromomethane	√	√		√
Carbon tetrachloride	√	√	√	√
Chlorobenzene	√	√	√	√
Chloroethane	√	√		√
Chloroform	√	√	√	√
Chloromethane	√	√		√
1,2-Dibromoethane (EDB)	√	√		√
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)	√	√		√
1,2-Dichlorobenzene	√	√		√
1,3-Dichlorobenzene	√	√		√
1,4-Dichlorobenzene	√	√	√	√
Dichlorodifluoromethane	√	√		√
1,1-Dichloroethane	√	√		√
1,2-Dichloroethane	√		√	√
1,1-Dichloroethene	√	√		√
cis-1,2-Dichloroethene	√	√		√
1,2-Dichloropropane	√	√		√
cis-1,3-Dichloropropene	√	√		√
Ethylbenzene	√	√	√	√
Hexachlorobutadiene	√	√		√
Methylene Chloride	√	√		√
Styrene	√	√	√	√
1,1,2-Trichloro-1,2,2-trifluoroethane	√	√		√
1,2,4-Trichlorobenzene	√	√		√
1,1,1-Trichloroethane (methyl chloroform)	√	√	√	√
1,1,2-Trichloroethane	√	√		√
1,2,4-Trimethylbenzene	√	√		√
1,3,5-Trimethylbenzene	√	√		√
1,1,2,2-Tetrachloroethane	√	√		√
Trichloroethene	√	√	√	√
Trichlorofluoromethane	√	√		√
Vinyl chloride	√	√		√
m-Xylene & p-Xylene	√	√	√	√
o-Xylene	√	√	√	√
Ethanol				
Acetone			√	
2-Propanol			√	

WLLS VOC Analytes Lists July 30, 2015				
Volatile Organic Compound	**EPA WLLS Analyte**	**NATTS Analyte**	**Republic Analyte per QAPP Appendix F**	**Republic Requested Analytes List**
Methyl tert-butyl ether		√	√	
Hexane			√	
Ethyl Acetate			√	
2-Butanone (MEK)			√	
Cyclohexane			√	
Propyl Benzene			√	
Naphthalene			√	